

## CLAIMS

What is claimed is:

- 1           1.       A system for providing secure communication of a voice call placed across a  
2       PSTN through a telephony resource, wherein a voice call is understood to refer to a call using  
3       a bearer service that is circuit mode, with either 64Kbps information transfer rate or 64Kbps  
4       information transfer rate adapted to 56Kbps, that uses unrestricted or restricted digital  
5       information transfer capability, said system comprising:  
6           a security policy including rules defining a voice call to be conducted in a secure  
7       mode;  
8           a VPSTN for implementing said rules in said security policy and initiating encryption  
9       of the voice call using a secure mode selected from a predetermined set of secure modes and  
10      placing the call across the PSTN;  
11          said VPSTN including an in-line device for intercepting and modifying the set-up of a  
12      voice call identified by said security policy to be conducted in a secure mode;  
13          said modification of said call set-up including changing said call set-up from a  
14      request for bearer capability to support a voice call to a call set-up including a request for  
15      bearer capability to support a data call, said data call being understood to refer to a call using  
16      a bearer service that is circuit mode, with speech or 3.1 kHz audio information transfer  
17      capability and user information layer 1 protocol G.711 mu-law or A-law.

1           2.     The system as defined in Claim 1 wherein said VPSTN also provides for  
2     initiating an encryption of the voice call using another secure mode selected from said  
3     predetermined set of secure modes and placing another data call should a prior attempt to  
4     place the call across the PSTN as a data call fail.

1           3.     The system as defined in Claim 2 wherein said VPSTN also provides for  
2     initiation of encryption of the voice call in a voice call secure mode should all attempts at  
3     placing the call across the PSTN as a data call fail.

1           4.       A method for providing secure communication of a voice call placed across a  
2       PSTN through a telephony resource, wherein a voice call is understood to refer to a call using  
3       a bearer service that is circuit mode, with either 64Kbps information transfer rate or 64Kbps  
4       information transfer adapted to 56Kbps, that uses unrestricted or restricted digital  
5       information transfer capability, said method comprising the steps of:

6           establishing a security policy including rules which define a voice call to be  
7       conducted in a secure mode;

8           using a VPSTN to implement said rules in said security policy and initiating  
9       encryption of the voice call using a secure mode selected from a predetermined set of secure  
10      modes and placing the call across the PSTN, said VPSTN including an in-line device for  
11      intercepting and modifying the set-up of a voice call identified by said security policy to be  
12      conducted in a secure mode;

13          said step of using a VPSTN to modify said set-up of those voice calls identified by  
14      said security policy to be conducted in a secure mode includes changing said set-up from a  
15      request for bearer capability to support a voice call to a call set-up including a request for  
16      bearer capability to support a data call, said data call being understood to refer to a call using  
17      a bearer service that is circuit mode, with speech or 3.1 audio kHz audio information transfer  
18      capability and user information layer 1 protocol G.711 mu-law or A-law.

1           5.       The method as defined in Claim 4 wherein said VPSTN also provides for  
2       initiating an encryption of the voice call using another secure mode selected from said  
3       predetermined set of secure modes and placing another data call should a prior attempt to  
4       place the call across the PSTN as a data call fail.

1           6.       The method as defined in Claim 5 wherein said VPSTN also provides for  
2   initiation of encryption of the voice call in a voice call secure mode should all attempts at  
3   placing the call across the PSTN as a data call fail.